overestimating technique, and so our view is that the intake that would be associated with a contamination -- decontamination event would be well-bracketed by the Savannah River high five intake. The dose reconstruction -- the numbers in the dose reconstruction are -- are, we think, appropriate -- or certainly overestimating. The wording in the dose reconstruction -- if these things are not specifically described in the dose reconstruction is the issue we talked about earlier, and I think it's an issue that you will see is getting better addressed in more recent dose reconstructions.

**DR. H. BEHLING:** This is Hans Behling and I agree with Stuart on the technical issues. I also agree that if there are discrepancies between the CATI report and what was done in his behalf, those differences or discrepancies should at least be addressed in the report so that the individual, when he sees it, does not feel that his comments were ignored. If, for instance, in the case of his statement that he participated in an in vitro program and the DOE records don't show it, we should at least

acknowledge it and say there are no records, and at that point we have to make a decision as to why we're not going to necessary (sic) address it, but also incorporate the fact that the high five hypothetical assignment will probably cover it for you so that this is an issue that should not cause anybody any serious heartburn.

**MR. HINNEFELD:** I think that's -- that's well taken.

Believe it or not, we're ready for the next case already.

**DR. H. BEHLING:** This was an easy one.

**MR. GRIFFON:** Well, we punted on the big topic.

**MR. HINNEFELD:** We'll get to that -- we'll get to that a little bit later. Okay.

**DR. H. BEHLING:** Okay, this is nine?

**MR. HINNEFELD:** Case #9 -- oh, you want to introduce it?

**PRESENTATION/DISCUSSION OF ISSUES FOR CASE #9**

**DR. H. BEHLING:** Yeah. Case #9 is again a Savannah River Site claim. The person there was employed for a period of almost years, through ' , so those were early years. And again, they're always important to me

because I -- I am old enough to know what health physics was about in the infancy stages, so I'm always sensitive to issues when I see a worker was involved in radiological work in the early days of health physics.

He was a -- in a and he suffered a cancer of the pancreas which, on the basis of an assigned dose of 18 rem, yields a POC value of 17.55 percent. So that's the overview of this particular claim case. Stuart?

**MR. HINNEFELD:** Okay. The first issue on the case is one that was -- we discussed on a different case, and is that uncertainty was not included in the measured photon dose. And I think in accordance with our discussion just a few cases ago, we -- NIOSH agreed that we would do some evaluation of the effect of the approach that was used in the dose reconstruction versus the approaches that Hans describes in some of the procedural guidance that's out there in terms of including the (unintelligible) in the measured dose and the appropriate organ correction factor.

**DR. H. BEHLING:** Just for clarification -- this

is Hans again -- the previous discussion on the issue of ignoring uncertainty when a DCF value of one is used, that was case #6.

**MR. HINNEFELD:** Okay. Issue number two is the comment that although the Energy employee started working in , his exposure record starts in Dose reconstruction assumes that there was no recorded dose in and assigned missed dose for each of the dosimeter cycles for , but we don't really know that there were zeroes in ' . And in fact, if you look at the records provided by the Department of Energy, the very -- the earliest years had a -- the doses are recorded on a card and it starts out with like 52 entry lines because they had 52 cycles, and at the bottom of the card there's a space for a value that's called total accumulated exposure -- or cumulative -- total accumulative exposure. Now -- and there is also a line for this year's total -- or -- so if you look at the card, those two values are the same, so that led the dose reconstructor to conclude that since his total was the same as his total accumulative total, the was the first year of any

recorded exposure. And so the dose reconstruction, we think, correctly used missed dose for the cycles in because there is evidence that his recorded exposures for were zeroes.

**MR. GRIFFON:** Here's my issue about unmonitored versus missed. We -- I -- I don't see that there's any record of any zeroes in , other than the --

**MR. HINNEFELD:** Okay.

**MR. GRIFFON:** You know, you have accumulative that says you -- ' I agree with your statement, so I agree that they had no recorded dose prior to that. But it doesn't necessarily mean there were zeroes. It means they could have just inadvertently not monitored the individual. And then do you apply half of the LOD or do you apply -- you try to find coworker data?

**MR. HINNEFELD:** Well --

**MR. GRIFFON:** Or -- or -- you know.

**MR. HINNEFELD:** Okay, I understand your point.

**MR. GRIFFON:** Yeah.

**MR. HINNEFELD:** I understand your point.

**MR. GRIFFON:** I mean it might --

**MR. HINNEFELD:** And I agree with --
**MR. GRIFFON:** It might turn out that half of the LOD is a conservative approach, but I think that (unintelligible) -- up in the '50's --
**MR. HINNEFELD:** Well, '53 was --
**MR. GRIFFON:** -- you have to be careful of that.
**MR. HINNEFELD:** '53 was the first year of operation --
**MR. GRIFFON:** First year of operation.
**MR. HINNEFELD:** -- for Savannah River, and it was relatively late in the year.
**MR. GRIFFON:** Right.
**MR. HINNEFELD:** So --
**MR. GRIFFON:** Might not --
**MR. HINNEFELD:** -- I guess on the face of it, I would think that it would be the relatively appropriate thing to do to provide a missed dose calculation 'cause there was none recorded and a likelihood -- since there was not much operating experience in '53, probably little likelihood for exposure, so --
**MR. GRIFFON:** I think that's a better explanation (unintelligible).
**MR. HINNEFELD:** Okay.

**MR. GRIFFON:** That's my point (unintelligible).
**MS. MUNN:** In addition to that, it is fairly common, was it not -- it certainly was in later years. Was it not common in the early years to have at least some weeks of training period before actual placement in a job activity?
**MR. HINNEFELD:** I suspect that's true. I don't know that I've encountered anything exactly like that, but that sounds plausible.
**MS. MUNN:** It sounds plausible to me.
**MR. HINNEFELD:** Right. Okay. It looks like a have a numbering issue.
**DR. H. BEHLING:** Yeah, I have 2(a) and 2(b).
**MR. HINNEFELD:** Okay, we'll go with -- that's good. That's good.
Issue 2(b) then is that the medical dose is based on the group 2 organ, but guidance indicates group 1. Now the -- the origin for this comment is that Savannah River -- I believe it's Savannah River Technical Basis Document provides groupings of organs for assigning medical dose. And so it -- essentially I guess if they -- (unintelligible) way you group organs that are in the -- in the torso. In one grouping you group organs in the

abdomen. Second grouping (unintelligible) outside the primary beam and I believe the (unintelligible) is the third grouping or something. So this has to do with the selection of the correct column or correct grouping of organs. This particular person's cancer is of the pancreas. The pancreas does not appear on the list of organs that are grouped. And one of the -- one of the grouping categories is this organ, this organ, this organ and other organs not listed. And so based on that, the reviewer felt like that was the (unintelligible) that should have been selected -- the column that should have been selected for the dose assignment.

However, for the pancreas we have a standing surrogate organ of the stomach, since it is closely located. It's just located close by for external exposures. Our routine approach for pancreatic dose is to use the dose conversion factor for the stomach, which is in fact listed in the column that the dose reconstructor selected.

So from our standard practices, this would be done in accordance with what we would expect.

Once you -- when you choose an external organ as an appropriate -- choose an organ as an appropriate surrogate for the target organ, then that's the organ you would look for in that column -- the listing of organs.

**DR. H. BEHLING:** Yeah, I -- I only raised that an -- this is Hans Behling. I only raised that as an issue because it wasn't clear to me, in the absence of a definitive statement that says for the pancreas you use group 2 as the organ dose in question for X-ray. And as it turns out, it would have been a fairly substantial difference. I think for the number of years involved, the 2 would have yielded a difference of almost -- no more than a factor of two, so I felt at least it was significant enough for me to raise the question in clarifying where does the pancreas fall in terms of the grouping, 1, 2 or 3, and the assumption of group 2 was not very evident to me.

**MR. HINNEFELD:** And I -- I guess I -- I recognize that, because based on the words on the page, it certainly isn't. And so there may be some (unintelligible) that's appropriate for the headings --

**DR. H. BEHLING:** Yeah --

**MR. HINNEFELD:** -- (unintelligible) discussion of when a surrogate is selected, look for the surrogate.

**DR. H. BEHLING:** In your comment -- this is Hans Behling. In your comment you say the newest revision of the TBD clarifies this issue.

**MR. HINNEFELD:** Okay, good. I guess we've already done that then.

**DR. H. BEHLING:** Yeah.

**MR. HINNEFELD:** Okay, issue number three then is a comment that the tritium assignment for a -- for a year is 71 millirem instead of 355 required by procedure. And this -- the difference between 355 and 71 is the difference between a retention level of one microcurie per liter and a detection level of five microcuries per liter. And it -- and then that -- the assumption of excretion consistently at that level for the entire year -- essentially the dose conversion for excretion at that level. The difference here is -- again, I suspect this is relatively confusing in our procedures about how to go about dealing with an issue -- one

set -- one set of circumstances or another set of circumstances. One set of circumstances would be people who are not monitored but perhaps should have been during some periods of time Savannah River didn't record a number that was less than five. And so when you're in that situation, when you don't really know much of anything, pick the highest number you can and write down -- you know, and that would be the five microcuries per liter and then the corresponding dose would be 355 millirem. But in this particular case the person was monitored and the reporting of the tritium results were pretty consistent -- were consistently reported as less than one microcurie per year as opposed to less than five, and so that's why the procedure was -- you know, the less than one, the one microcurie liter dose which (unintelligible) millirem, but (unintelligible) dose reconstruction.

**DR. H. BEHLING:** I didn't interpret it quite that favorably. I'm going to provide a list of slides that unfortunately you, Wanda and Ray, will not have access to until you get your handout. But the issue is not necessary (sic)

one of what is the MDL value, but what was recorded. And according to the statement, urine samples with less than five microcuries per liter were not recorded, so you really don't know whether or not the person had been monitored and the issue was one versus five. And let me give you why I believe this is a very real problem here and -- and bear with me because this is one that involves several slides.

Let me give you the slide number 9.2 -- okay. Okay, this comes as a quote from NIOSH dose reconstruction report in behalf of case #9. It's on page 7 of that dose reconstruction report and it states that an annual tritium dose was not reported or was reported to be less than the possible missed dose for all years that the claimant was employed. Based on information in section four of the Savannah River Site Technical Basis Document; the Technical Information Bulletin, Maximum Internal Dose Estimates at Savannah River Site; SRS claims; and the Technical Information Bulletin, Savannah River Site Tritium Dose Assignment, this results in a maximum potential

missed dose of 1.633 rem from tritium. That corresponds to 21 -- no, 23 years of missed tritium dose at 71 millirem per year. And what I failed to identify in my -- in my reading of this, that the dose reconstructor identified three separate documents identified as reference 5, 6 and 7. The first one is the Technical Basis Document for the Savannah River Site, and the other ones are Technical Information Bulletins -- and let me see, I think I have the -- yeah, the Technical Information Bulletin, Maximum Internal Dose Estimate for Savannah River Site Claims, and that is ORAUT-OTIB-0001 and the second one, ORAUT-OTIB-0000, Technical Information Bulletin, Savannah River Site, Tritium Dose Assignment, et cetera.

So let me go into the -- show you what each of those documents really prescribes when it comes to the issue of missed tritium dose, and I'll start out with the ORAUT-TKBS-0006. In that particular case you see from the year through the year which brackets this employment period, the assigned missed dose should have been, per year, 355 millirem.

Okay? So that -- that's the first reference that this individual cites in support of his selection of 71 millirem per year, so that clearly is not a document he should have cited to support his -- his statement. 71 only becomes a recommended dose assignment after , starting with . Okay?

**MR. HINNEFELD:** Well, I will just comment that we're reading from the section that -- this is assignment of internal doses from tritium, maximizing approach for dose reconstruction.

**DR. H. BEHLING:** Yes.

**MR. HINNEFELD:** So this is a maximizing approach. And there's -- there's a next paragraph down, I don't know what it says is -- a best estimate approach, so this is a -- this is a --

**DR. H. BEHLING:** Okay, let me --

**MR. HINNEFELD:** -- (unintelligible) --

**DR. H. BEHLING:** Let me read the best estimate approach. The dose reconstructor has the option of not assigning the above tritium doses if it can be determined that the employee was not likely to be exposed. In this case, as I've said in the first (unintelligible) said

she was -- there was no data, and so again the question is was he or wasn't he exposed, was he monitored or was he not. We don't know, and it goes on. Otherwise tritium doses are assigned a triangular distribution with the above numbers as the maximum. In other words, 355 becomes the maximum.

**MR. HINNEFELD:** I remember that. I remember that (unintelligible).

**DR. H. BEHLING:** The minimum is seven millirem, the median is 71 and the maximum is 355. Now that's -- and then you're supposed to -- to -- to obviously (unintelligible) the dose and to parameters one, two and three in the IREP code, which he didn't do. So that's the first document that he cited.

Let me show you what the next document cite -- this is ORAUT-OTIB-0001. Okay? Here again you see in table 13 the years, and it gives you the annual dose in -- in -- in rem or I'll convert it to millirem between 1953 and 1983, 355 millirem is the assigned dose. After that it's 71, and after 1991 -- '92 it's 7.1. And so again, those numbers are consistent with the previous slide. Okay?

Let me give you the last one, which is ORAUT-OTIB-0003. This is a very complicated procedure, and what I'm showing here on this -- on the projector is a description of the Savannah River Site dose assignment logic diagram which -- for between 1953 and 1983 -- a dose reconstructor is to use. And I won't go into it, but it gives you a couple of statements here that supports my early contention about the five microcuries per liter which was not reported prior to 1983 and therefore serves as an indictor of what could have been missed because the practice was not to record doses that were less than five microcuries per liter. And it goes on, and I won't elaborate, to the next slide, which gives you an algorithm. This is slide 9.6. Again, I'm sorry to say that we had to move the slide projector too far -- too close to the screen and it won't allow you -- but the first stage of this algorithm, it says result of greater than five microcuries per liter in a given year and so forth. But in the absence of knowing any of this, this -- this becomes useless. Okay?

So -- but if you follow this through, you will still end up with 355 millirem based on the absence of information because this then assumes (unintelligible) information. So let me go and then summarize this, and this I think will be the clincher.

We're at this point on case #9 and you can't see the slide, and there are four more cases for Savannah River Site. Okay? There are -- we haven't addressed yet case #10, #11, #12 and #13, and I want you to look at the years of tritium exposure versus what the dose reconstructor assigned. For the case #8 which we just finished up to the 1983 he just (unintelligible) assigned, according to the table, 355. Starting with 1984 he is assigned 71.

For case #9 for the same period of years -- I mean you look at 1953 through '71, which pretty much coincides with case #12, he started in and worked through Again, this is the only kind -- this is the only case among the six Savannah River cases where a annual missed tritium dose of 71 was assigned during that time period. So either all the other five

cases are wrong, or -- and this one is right, or this one is wrong and the other five cases are right.

**MR. HINNEFELD:** Well --

**DR. H. BEHLING:** We have an inconsistency here.

**MR. HINNEFELD:** -- I'm not prepared to say anything other -- you know, counter to that. It sounds like you've made a good point, but I may learn more when I get back that I'll share with you -- with everyone, but I understand what you're saying and it sounds like a convincing point right now.

**DR. H. BEHLING:** Okay. Issues four and five I think we can skip. Is that correct?

**MR. HINNEFELD:** Four and five are the generic organically bound tritium issue and the Savannah River high five issue which we're going to talk about here in a few minutes.

**DR. H. BEHLING:** Okay.

**MS. MUNN:** Uh-huh.

**MR. GRIFFON:** I have -- before we move from case #9 -- Mark Griffon again -- I'm sorry, Ray. Going back to your original report -- SCA's original report on page six of this case -- this goes back to my missing versus

unmonitored, not to harp on this issue, but it -- it says in the auditor's comment, SCA reviewed DOE's 86 pages of dosimeter records. (Unintelligible) our review of the DOE record shows that there are a substantial number of dosimetry cycles that are missing. Was that resolved? I don't see that in the final set of issues.

**DR. H. BEHLING:** I think --

**MR. HINNEFELD:** Well, there's a -- Savannah River -- there are a certain number of years where they can't necessarily provide (unintelligible) result (unintelligible). I'm not exactly sure what the origin of that comment is right now, sitting here today.

**DR. H. BEHLING:** We -- I think we have a series of -- of claims where the data simply won't allow you to determine whether or not they were accounted for because (unintelligible) the records were either incomplete or we only had summary records.

**MR. HINNEFELD:** There are some -- some of the years from Savannah River provide essentially a quarterly report. Is that right? Does that sound familiar?

**UNIDENTIFIED:** (Unintelligible) years are '73 on.

**MR. HINNEFELD:** (Unintelligible) what years exactly.

**MR. GRIFFON:** Some of the things I'm guessing on here (unintelligible) I don't know if these two coincide, but they mention the years '64, '66 and '75 as three -- three of the years, but that may be two separate issues. (Unintelligible) page -- page six on your comment, Hans. I don't know if you recall that.

**DR. H. BEHLING:** Yeah, I have to actually get my -- my report out.

**MR. GRIFFON:** Go ahead and get it. My -- my -- I guess my point is that if -- if you only have annual summary data, I think that, at the very least, should be spelled out (unintelligible) annual summary data and the person was likely monitored monthly, quarterly, whatever. It -- it -- it -- to me, that says -- you know, that says that you couldn't validate that annual dose. You didn't have cards, you didn't have anything to go back to. You just had an annual number, and that may be fine, but I think in

some cases we would certainly want some validation (unintelligible) you know, where -- where available. I guess the reason I raise this is because in some of my work in the past I've run across situations where I've only had annual summary doses and then when you dig further you actually find health and safety reports that in the early years actually mention people's names that were in incidents, and it turns out that they had doses in these monthly reports for the individuals. And I looked at those individuals' records and the annual summary didn't reflect those --

**MR. HINNEFELD:** (Unintelligible)

**MR. GRIFFON:** Right, right. So I'm always a little cautious or leery about relying on annual -- annual information, especially in the early -- you know.

**DR. H. BEHLING:** Mark, are you -- are you referring to page six, the audit comment regarding the -- the missing data?

**MR. GRIFFON:** Second paragraph on the -- under auditor's comments, second paragraph.

**DR. H. BEHLING:** Okay. Starting with SC&A reviewed DOE's 86 pages?

**MR. GRIFFON:** Uh-huh.

**DR. H. BEHLING:** Yeah. What in fact they did do -- and again, this may be easily defended in terms of process efficiency for a claim that is not likely to be compensable is to assign more missed doses than is likely, based on the blanket assumption that for every year, assuming during that time period you were on a monthly schedule and assigning simply 12 per month, and if there's 20 years, that would be 240 or something like this -- or whatever. And in fact I think this guy went through (unintelligible) calculated because he started in 1953, I believe, where you had weekly and then you went to bi-monthly, then went to monthly. And I think in each case the -- and my statement sort of summarizes below that says NIOSH's assumption of 672 missed photon doses (unintelligible) and very claimant favorably because I came up with a considerable fewer number, and I may have even subtracted those periods where there was a positive recording that would obviously no longer qualify for a missed dose. So I think for efficiency purposes, they assigned a number of cycles that

were theoretical maximums, meaning that they assigned 52 for the years when it was weekly, 24 when it was bi-monthly, 12 when it was monthly, et cetera, et cetera, and arrived at 672 missed doses. And so I can understand that it's -- you know, when you -- when you get some of these DOE records, you can (unintelligible) and to wade through it, and if you know you're not going to compensate because of the nature of the claim and the cancer in question, for efficiency I say give him more than what he deserves rather than count the actual number of zero --

**MR. GRIFFON:** My -- my -- that's my question, are you giving them more than they deserve or are you just --

**DR. H. BEHLING:** Well --

**MR. GRIFFON:** -- operating efficiently?

**DR. H. BEHLING:** -- operating efficiently (unintelligible) --

**MR. GRIFFON:** (Unintelligible)

**MR. HINNEFELD:** Your point, though, Mark -- you know, I understand your point. Your point is that there may be exposures that are essentially unmonitored (unintelligible) that

he wore a badge that read zero --
**MR. GRIFFON:** (Unintelligible) unmonitored --
**MR. HINNEFELD:** -- but there may have been an event that was not captured in his record and so -- okay, I -- I -- I see your point. I think -- trying to struggle with this --
**DR. H. BEHLING:** This is --
**MR. GRIFFON:** Well -- well, I know there's a question of I think where -- where you have more evidence is when you -- you kick that back and say unmonitored and should have been moni-- you know, unmonitored and he was clearly working in this area where all these other people were monitored, something doesn't look right. And I think just to start applying the LOD over two across these (unintelligible) in most cases are probably going to be claimant favorable, I agree. But you know, you -- and I guess where I am most -- where it raises a red flag with me in most cases is where you have gaps in the monitoring as opposed to for three years it's not -- nothing, and then he starts on a monitoring program and that looks pretty consistent. That's reasonable. But when you see, you know, spaces missing, that raises

flags with me more than -- you know, so I think --

**MR. HINNEFELD:** Okay.

**MR. GRIFFON:** -- (unintelligible) some judgment call, but --

**DR. H. BEHLING:** Again, Hans Behling here. I looked at this case, Mark, and in this case it is not likely that there were unmonitored periods of time or missing records. What you can do is you can really streamline this approach by saying okay, with each of the DOE records what you get is usually a top page that says this is the history right here, and you get a dose value for, you know, 1953, '54, '55 and so forth. And then you have to go down the list and then in the back pages you'll see dosimeters by cycles. And so if there were 52 cycles, 24 or 12, you'll see a dose reading for each of those. And I believe I checked those and actually went through and there does not appear to be a period when the person was not monitored.

The shortcut they took was to assign essentially a missed dose for every single cycle, whether or not the recording was above

LOD or not, and so I believe the -- the assignment of the missed dose in this case was highly claimant favorable, and was probably done for efficiency purposes rather than making a guy go through reams of pages. He simply says we'll give you more, but I don't believe, and I take to heart your concern that there may be instances where a missed dose is generously assigned when in fact a higher dose for unmonitored was the case or records were missing. But in this case I believe that was not the case. I looked at the data. I looked at the summaries and I followed through -- in fact, I went painstakingly through it and said where did they come up with 672; I don't come up with that many.

**MR. GRIFFON:** But I did that with -- I think it's case #11. I walked it through that way. I didn't do it with this one, but I guess what drew my attention was substantial number of (unintelligible) cycles that are missing, but your comment -- but -- but then you said at the end there that NIOSH made claimant favorable (unintelligible) I'm not sure I --

**MR. HINNEFELD:** I'd like to try to go -- you

know, look at the record when we get back in the office, see if we can sort out a view of it, but I think your admonition here, Mark, is that -- if I can summarize, we have what appears to be a well-monitored employee, you know, meaning there's a pretty complete record. And there's some gaps in there that aren't particularly well-explained. Like there's no coinciding change in monitoring practices at the site or something like that, that that may want to throw down a flag about did we really get everything -- Department of Energy that we thought we got and that there may be some investigation on a case like that. But -- have I summarized it?

**MR. GRIFFON:** Yeah, and some of the generic cautions about relying on the annual summary as opposed to (unintelligible) crosswalk --

**MR. HINNEFELD:** And an annual summary may not encompass --

**MR. GRIFFON:** Right.

**MR. HINNEFELD:** -- (unintelligible) may not encompass an incident assigned dose, for instance.

**MR. GRIFFON:** Right.

**MS. K. BEHLING:** Kathy Behling, and I'm -- we were wondering if -- 'cause I think Mark's bringing up a very interesting point and will we be -- this is a more global issue and not specific to this case, but it's something that I wondered as we were walking through all of these cases, we saw a lot of areas where they calculated missed dose, but I didn't see any case -- now we only looked at 20 so far -- where they came to the conclusion that there must unmonitored dose. And I'm just curious while we're at this point if NIOSH might be able to explain what flags go up where you actually go to coworkers, because we had one case where the claimant stated I definitely wore dosimetry, or maybe it was in a phone log or something, but we did come across data where the claimant -- and there just no records. And I wondered at what point does NIOSH actually say I think we may have unmonitored data here because we didn't see any of that in any of these 20 cases. I know it's a small sampling, but I just wondered what your approach is.

**MR. HINNEFELD:** Well, there's some general -- there's some general approaches. There is a

whole category of construction workers that we -- we put it in the category of early construction workers. Now early is relatively ill-defined and it's different from site to site. But it's pretty well accepted that a construction worker at sites during, quote, early years may have fallen through the cracks of the radiation monitoring program, that he's a -- they're construction, they're going to be here temporarily, they'll be here and they'll be gone, and so they kind of fell through the cracks and may have been not monitored when they should have been. And so there's a whole category of claims -- you know, quote, early construction worker claims -- which we're not doing until we can assemble a set of information that will provide us some coworker popu-- coworker population type of numbers to use in an unmonitored situation like that. We have routinely -- we routinely -- I won't -- well, not routinely, but it's not uncommon to receive dose reconstruction reports or to have prepared dose reconstruction reports for people who worked for a couple of years early in the gaseous diffusion plant and were not monitored.

And for those cases we have established a coworker population number -- you know, the monitored population and then, depending on the person's job description, maybe the mean or a high end of the -- of the distribution of monitored people to assign for that person for unmonitored exposure.

So there -- there are a number of categories of cases where we do say this is not someone who -- - this is someone who was apparently not monitored, but was incorrectly not monitored, and therefore we need to make some sort of coworker dose assignment. So there are -- there are a variety of them. I think you will -- you will see fewer in early cases since your reviews are on cases that are complete and were done relatively early. You'll see fewer examples early than you would see if you were re-- you know, when you get to the point where you're reviewing cases that are being prepared now. Okay? So it'll -- it'll be more apparent as the project goes on.

**DR. H. BEHLING:** I'm just reviewing and -- and I'm sure, Mark --

**MR. GRIFFON:** Yeah.